

In the Claims:

1. (Currently Amended) A method for controlling the forwarding quality in a data network comprising network, the method comprising:

measuring [(S 11)] end-to-end forwarding quality in measurement nodes [(106)] located outside the network ~~core and~~ core;

detecting forwarding quality violations in at least one path between the measurement nodes; ~~these nodes, characterised by the further steps of:~~

~~selecting (S13, S15, S17) selecting~~ at least one potentially overloaded interface ~~comprised in~~ along the at least one path where forwarding quality violations were detected by combining knowledge about different end-to-end measurements performed in the network; data network with knowledge about the network topology ~~topology~~, i.e. which interfaces are ~~traversed over each individual path~~, and knowledge about booking levels and forwarding capacity for [(the)] interfaces along the at least one path; and

~~defining (S23) defining~~ a new or adjusting [(S21)] an already existing provisioning level for each selected interface, said provisioning level defining a maximum admitted sum of forwarding resources requested directly or indirectly by applications for their application data flows ~~flows~~, ADFs, for the interface/s; interfaces, such that the usage of each path detected to have forwarding quality violations is limited at one or more interfaces.

2. (Currently Amended) [(A)] The method according to [(claim)] claim 1, ~~characterised by~~ further comprising iterating [(S29)] the ~~process~~ method to improve [(the)] provision settings of the ~~provisioning levels in the system~~ data network.

3. (Currently Amended) [[A]] The method according to claim 1, characterised by further comprising storing [[[S27)]] information about previous end-to-end measurements and previous booking levels for the interfaces.
4. (Currently Amended) [[A]] The method according to claim 1, characterised wherein the selecting is performed at least in part by using history of previous booking levels possibly together with [[any]] associated quality violations, forwarding capacities and/or provisioning levels for the interfaces for the selection of at least one potentially overloaded interface.
5. (Currently Amended) [[A]] The method according to claim 4, characterised by 3. further comprising:
detecting [[[S33)]] that a previously set provisioning level for an interface is reached without any measured quality violation on paths involving ~~this interface~~ the interface; and
by using [[[S35)]] the stored information of previous end-to-end measurements and previous booking ~~levels~~ levels, selecting [[[S37)]] at least one other interface that probably caused the end-to-end forwarding quality violation measured when the previously set provisioning level was ~~set and remove (S39)~~ set, removing or increase increasing the provisioning level for the previously selected ~~interface~~ interface, and ~~instead provide~~ providing a provisioning level to ~~each new selected interface~~ the at least one other interface, or if no other potentially overloaded interfaces exist, ~~increase (S39)~~ increasing the limiting provisioning level.
6. (Currently Amended) [[A]] The method according to claim 1, characterised in that wherein the defining [[[S23)]] of [[a]] the new or [[the]] adjusting [[[S21)]] of [[an]] the already existing provisioning level for ~~the at least one~~ each selected interface is performed at least in part

by setting the provisioning level equal to the ~~booking-level~~ booking level for the selected interface at the time ~~[[for]]~~ of the detected quality violation.

7. (Currently Amended) ~~[[A]]~~ The method according to claim 1, ~~characterised in that~~ wherein the defining ~~[[S23]]~~ of ~~[[a]]~~ the new or ~~[[the]]~~ adjusting ~~[[S21]]~~ of ~~[[an]]~~ the already existing provisioning level for ~~the at least one~~ each selected interface is performed at least in part by setting the provisioning level lower than the ~~booking-level~~ booking level in the selected interface at the time ~~[[for]]~~ of the detected forwarding quality violation and either pre-empting some reservations to reach the provisioning level or waiting for some reservations to be released to reach the provisioning level.

8. (Currently Amended) ~~[[A]]~~ The method according to claim 6, ~~characterised by~~ wherein choosing one of the described provisioning level setting methods ~~depending~~ depends on which level of quality violation ~~[[that]]~~ was measured.

9. (Currently Amended) A node in a data network, said node ~~being adapted to control the~~ controlling a forwarding quality in the data network and ~~comprises~~ comprising:

receiving means ~~(57) adapted~~ to receive information of end-to-end measurements of forwarding quality performed in the data network and ~~network, characterised in that the~~ receiving means (57) further is adapted to receive information of the data network topology and information of booking levels and forwarding capacity for interfaces in the data network; ~~network and in that it further comprises:~~

~~-selecting~~ selecting means ~~[[59]]~~ connected to the receiving means ~~(57) and adapted to~~ combine information from the end-to-end measurements with the topology information and the

information of booking levels to select at least one potentially overloaded interface comprised in at least one path where forwarding quality violations ~~[[has]]~~ have been detected ~~the~~ by end-to-end measurements of forwarding quality; and

~~-provisioning~~ provisioning level defining and adjusting means ~~[[(61)]]~~ connected to the selecting means ~~(59)~~ and adapted to define a new or adjust an already existing provisioning level for the at least one ~~selected~~ potentially overloaded interface, said provisioning level defining a maximum admitted sum of forwarding resources requested directly or indirectly by applications for their application data ~~flows, ADFs, flows~~ for the ~~interface/s, interfaces~~, such that ~~[[the]]~~ usage of each path detected to have forwarding quality violations is limited at one or more interfaces.

10. (Currently Amended) ~~[[A]]~~ The node according to ~~[[claim]]~~ claim 9, ~~characterised in that it is adapted to iterate wherein the node iterates~~ the process of defining and adjusting provisioning levels to improve the settings of the provisioning levels in the system.

11. (Currently Amended) ~~[[A]]~~ The node according to claim 9, ~~characterised in that it comprises further comprising~~ storing means ~~[[(63)]]~~ connected to the receiving means ~~[[(57)]]~~ and to the selecting means ~~(59)~~; means, said storing means ~~(63)~~ being adapted to store information about previous end-to-end measurements and previous booking levels for the interfaces.

12. (Currently Amended) ~~[[A]]~~ The node according to claim 11, ~~characterised in that wherein~~ the selecting means ~~(59)~~ is ~~adapted to retrieve~~ retrieves information from the storing means ~~[[(63)]]~~ in order to use history of previous booking levels ~~possibly~~ together with any

associated forwarding quality violations, forwarding capacities and/or provisioning levels for the interfaces for [[the]] selection of at least one potentially overloaded interface.

13. (Currently Amended) [[A]] The node according to claim 11, ~~characterised in that~~ wherein the receiving means (57) ~~further is adapted to receive~~ receives information that a previously set provisioning level in an interface is reached without any measured forwarding quality violation on paths involving this interface and ~~in that~~ the selecting means (59) ~~is adapted to by using~~ uses the stored information of previous end-to-end measurements and previous booking levels to select at least one other interface that probably caused the forwarding quality violation measured when the previously set provisioning level was [[set]] set, and the defining and adjusting means (61) ~~is adapted to remove~~ removes or increase increases the provisioning level for the previously selected interface and ~~instead provide~~ provides a provisioning level to each new selected ~~interface~~ interface, or if no other potentially overloaded interfaces exist, increase the limiting provisioning level.

14. (Currently Amended) [[A]] The node according to claim 9, ~~characterised in that~~ wherein the defining or adjusting means (61) ~~is adapted to set~~ sets the provisioning level equal to the ~~booking level~~ booking level for the interface at the time [[for]] of the detected quality violation.

15. (Currently Amended) [[A]] The node according to claim 9, ~~characterised in that~~ wherein the defining or adjusting means (61) ~~is adapted to set~~ sets the provisioning level lower than the ~~booking level~~ booking level for the interface at the time [[for]] of the detected forwarding quality violation and either pre-empting some reservations to reach the provisioning level or waiting for some reservations to be released to reach the provisioning level.

16. (Currently Amended) ~~[[A]] The~~ node according to claim 14, ~~characterised in that wherein~~ the defining or adjusting means ~~(64) is adapted to choose chooses~~ one of the described provisioning level setting methods depending on which level of forwarding quality violation ~~[[that]]~~ was measured.

17. (Cancelled)

18. (Currently Amended) A computer-readable medium ~~program product stored on a computer-usable medium; encoded with computer instructions which when executed cause computer to perform a method, the method~~ comprising ~~readable program for causing a processing means in one or more nodes in a data network, to control an execution of~~ the steps of claim 1.

19. (Currently Amended) ~~[[A]] The~~ method according to claim 2, ~~characterised by further comprising~~ storing ~~[[(\$27)]]~~ information about previous end-to-end measurements and previous booking levels for the interfaces.

20. (Currently Amended) ~~[[A]] The~~ method according to claim 7, ~~characterised by 8.~~ wherein the choosing one of the described provisioning level setting methods ~~depending depends~~ on which level of forwarding quality violation ~~[[that]]~~ was measured.